

NEMATODE-RESISTANT GRAPE ROOTSTOCKS

Currently-available commercial grape rootstocks have a number of serious shortcomings, including narrowness of soil pest resistance, excessive vigor except in the sandiest of soils, and a lack of long-term resistance to a specific soil pest of considerable importance, namely root knot nematodes.

A University of California scientist has developed two new grape rootstocks (designated RS-3 and RS-9) that feature broad-spectrum resistance to nematodes, including aggressive root knot nematodes. RS-3 has a moderate vigor level that is most suitable for coarse to fine sandy loam soils, and displays resistance to all known aggressive populations of root knot nematodes, to *Xiphinema index*, the citrus nematode (*Tylenchulus semipenetrans*) and to root lesion (*Pratylenchus vulnus*). RS-9 has a lower vigor, which will probably be better suited to coastal valleys. RS-9 also exhibits good resistance to root knot nematodes, *Xiphinema index*, and *P. vulnus*, and should be considered in cooler regions where ectoparasitic nematodes predominate.

Overall, RS-3 and RS-9 offer broader nematode resistance than grape rootstocks such as VR 039-16, Freedom, Harmony, Ramsey, or Teleki

5C(6), coupled with an attenuation of vigor that is desirable in many kinds of soils.

